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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
DILLON, SAMUEL A

ART UNIT	PAPER NUMBER
2185	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/684,207

Applicant(s)

GOLD ET AL.

Examiner

Sam Dillon

Art Unit

2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. The Examiner acknowledges the applicant's submission of the amendment dated November 16, 2007. Per the amendment, Claims 1, 2, 8-10, 13, 16, 19, 20 and 23 have been amended and Claims 24 and 25 have been added. The instant application having Application No. 10/684,207 has a total of 25 claims pending in the application; there are 6 independent claims and 19 dependent claims, all of which are ready for examination by the examiner.

I. RESPONSE TO AMENDMENT(S) / ARGUMENT(S)

2. In response to the amendment, the objection to Claims 1, 10, 13, 16, 19 and 23 as stated in the previous action are withdrawn. The Applicant was correct in noting that the objection was intended to cover said claims, and only listing Claim 10 was a typographical error.
3. Applicant's arguments with respect to the 35 U.S.C. 103(a) rejections of Claims 1-23 have been fully considered and are persuasive, but are moot in view of the new ground(s) of rejection, as described below. The Applicant was correct in noting that the rejection made under Fermilab was intending to cover Claims 1-9, 13-15 and 19-22.

II. REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC ' 103 – Bolin and Jennings

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-9, 13-15 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolin et al. (US Patent 5,664,146) in view of Jennings ("Using Access 97").

6. As per Claim 1, Bolin disclose(s) a method comprising:

receiving a list comprising media (*cartridge, figure 5 and column 9 line 51 through column 10 line 43*) and at least two backup devices (*device 361 and 363, figure 5 and column 9 line 51 through column 10 line 43*), wherein a first medium of the list is assigned to a first backup device, and a second medium of the list is assigned to a second backup device (*as seen in figure 5*);

presenting at least the media portion of the ordered list to a user (*figure 5*).

Bolin shows the physical location of the cartridges when they are at the home location and not in a device (*the home location Vlt14R4 of figure 5 corresponds to a physical bin location in figure 4*), and also the device they are located in (*device 361/363, figure 5*), but does not show the physical location of the actual device. At the time of the invention, it would have been obvious to modify Bolin's dataserver GUI window to show a physical location of a device in an equivalent format as the home location. The motivation for doing so would have been obvious to a person having ordinary skill in the art and would have been the same as the motivation to show the physical location of the home location, making the device easier to find when there are

a large number of devices or the devices are spread out over a large area (*such as is the case for home locations, column 10 lines 21-30 and figure 4*). Therefore, it would have been obvious to modify Bolin to include a physical location of the device in an equivalent format as the home location for the benefit of making the device easier to find when there are a large or widely distributed number of devices.

Additionally, Bolin does not disclose explicitly and purposefully ordering the list by physical location of the backup devices. Bolin does disclose a Windows-style GUI for displaying multiple columns, each column having a heading representing the data included in that column for each row. The Examiner notes that it is notoriously well known in the art in Windows-style GUI systems to be able to order a column in ascending or descending order if so desired. As an example, Jennings discloses ordering a set of rows by a given column in ascending or descending order (*sort ascending / sort descending buttons, table 3.2*). Bolin and Jennings are analogous art in that they both deal with Windows-style GUI lists with multiple columns.

At the time of the invention it would have been obvious to modify Bolin to allow sorting the list view of figure 5 by any of the given columns as taught by Jennings. The motivation for doing so would have been obvious to a person having ordinary skill in the art and would have been that it allows the faster finding of a specific value for that column (*for example, to find what cartridge is in a specific device*). Therefore, it would have been obvious to modify Bolin to allow sorting by an arbitrary column as taught by Jennings for the benefit of quick visual searches of column values, to obtain the invention of Claim 1.

7. As per Claim 2, Bolin and Jennings disclose(s) the method of Claim 1, further comprising before receiving the list, configuring a physical location for each of the backup devices (*Bolin, as combined above, to display the list of each physical location for the devices, a physical location must have been configured, figure 5*).

8. As per Claim 3, Bolin and Jennings disclose(s) the method of Claim 2, wherein configuring the physical location comprises obtaining information for one or more site locations and assigning each of the backup devices to one of the site locations (*Bolin, as combined above, any physical location can be considered a 'site' location, column 10 lines 21-30*).

9. As per Claim 4, Bolin and Jennings disclose(s) the method of Claim 3, wherein configuring the physical location further comprises:

obtaining information for one or more data centers, each of the data centers associated with one of the site locations (*Bolin, the data center is considered the set of one backup device at that location, the information for the data center being the physical location of the data center, column 10 lines 21-30*); and

assigning each of the backup devices to one of the data centers (*Bolin, as combined above, assigning a physical location to the device*).

10. As per Claims 5, 6, 21 and 22, Bolin and Jennings disclose(s) the method of Claim 2, and as combined disclose assigning a physical location to a backup device and logging this information as data in a list, but do not appear to disclose the physical location comprises assigning a grid location in a data center to at least one of the backup devices, or a grid location containing an order number. However these differences are only found in the nonfunctional descriptive material and do not change how the invention functions. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Circ. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the physical location be a grid location because the subjective interpretation of the data does not patentably distinguish the claimed invention.

11. As per Claim 7, Bolin and Jennings disclose(s) the method of Claim 5, wherein assigning a grid location comprises for at least one of the backup devices, automatically assigning, to the backup device, a grid location of a system attached to the backup device (*Bolin, if the physical location of an operational backup device can be considered a grid location, then the immediate system of connection (like a plug) to which the device is connected can be considered to have the same grid location*).

12. As per Claim 8, Bolin and Jennings disclose(s) the method of Claim 1, wherein ordering the list comprises ordering the list of media by an order number associated with each of the backup devices (*Bolin, order number would be physical location*).

13. As per Claim 9, Bolin and Jennings disclose(s) the method of Claim 1, wherein receiving the list comprises: receiving a list of media from a user to be used for one or more future executions of one or more backup jobs associated with the backup devices (*Bolin, all the cartridges are used for storage of data, and are either intended to be written to or read from in the future, figure 5, alternatively step 260 of figure 6 can be considered as sending a list of one media to be loaded and used, figure 6*).

14. As per Claim 13, Bolin and Jennings disclose(s) a system comprising:
a planner to receive a list comprising media (*Bolin, cartridge, figure 5 and column 9 line 51 through column 10 line 43*) and at least two backup devices (*Bolin, device 361 and 363, figure 5 and column 9 line 51 through column 10 line 43*), wherein a first medium in the list is assigned to a first backup device, and a second medium in the list is assigned to a second backup device (*Bolin, as seen in figure 5*), and to order the list by physical location of the at least two backup devices (*Jennings, table 3.2*); and
a user interface, communicatively coupled to the planner, to present at least the media portion of the ordered list to a user (*Bolin, figure 5*).

15. As per **Claim 14**, Bolin and Jennings disclose(s) the system of Claim 13, further comprising a configuration agent, communicatively coupled to said planner, to configure a physical location for each of the backup devices (*Bolin, as combined above, a human*).

16. As per **Claim 15**, Bolin and Jennings disclose(s) the system of Claim 13, wherein said user interface is further to receive a list of media to be used for one or more future executions of one or more backup jobs associated with the backup device and to transmit the list to said planner (*Bolin, all the cartridges are used for storage of data, and are either intended to be written to or read from in the future, figure 5, alternatively step 260 of figure 6 can be considered as sending a list of one media to be loaded and used, figure 6*).

17. As per **Claim 19**, Bolin and Jennings disclose(s) at least one machine-readable medium having stored thereon sequences of instructions, which, when executed by a machine, cause the machine to perform the actions of:

receiving a list comprising media (*Bolin, cartridge, figure 5 and column 9 line 51 through column 10 line 43*) and at least two backup devices (*Bolin, device 361 and 363, figure 5 and column 9 line 51 through column 10 line 43*), wherein a first medium of the list is assigned to a first backup device, and a second medium of the list is assigned to a second backup device (*Bolin, as seen in figure 5*);

ordering the list by physical location of the at least two backup devices (*Jennings, table 3.2*); and

presenting at least the media portion of the ordered list to a user (*Bolin, figure 5*).

18. As per **Claim 20**, Bolin and Jennings disclose(s) the medium of Claim 19, wherein the instructions comprise instructions, which, when executed by the machine, cause the machine to perform the actions of before receiving the list, configuring a physical location for each of the

backup devices (*Bolin, as combined above, to display the list of each physical location for the devices, a physical location must have been configured, figure 5*).

19. As per **Claim 24**, Bolin and Jennings disclose(s) the method of Claim 1, wherein the media are physically loaded into a backup device by a user in at least two different physical locations (*Bolin, figure 5*).

20. As per **Claim 25**, Bolin and Jennings disclose(s) the method of Claim 1, wherein the at least two backup devices are assigned to two different site locations and wherein the ordering comprises ordering the list by physical location of the site locations of the at least two backup devices (*Bolin, as combined, where site locations are the physical locations of the devices, figure 5*).

Claims Rejections – 35 USC ‘ 103 – Bolin, Jennings and Kanai

21. **Claims 10-12, 16-18 and 23** are rejected 35 U.S.C. 103(a) as being unpatentable over Bolin et al. (*US Patent 5,664,146*) and Jennings (“*Using Access 97*”) as combined above, in further view of Kanai (*US Patent Publication 2002/0152181*).

22. As per **Claims 10, 16 and 23**, but more specifically to Claim 10, Bolin and Jennings as combined disclose(s) a method comprising:

receiving a list comprising media (*Bolin, cartridge, figure 5 and column 9 line 51 through column 10 line 43*) and at least two backup devices (*Bolin, device 361 and 363, figure 5 and column 9 line 51 through column 10 line 43*), wherein a first medium in the list is assigned to a first backup device, and a second medium in the list is assigned to a second backup device (*Bolin, as in figure 5*);

ordering the list by physical location of the at least two backup devices (*Jennings, table 3.2*); and

presenting at least the media portion of the ordered list to a user (*Bolin, figure 5*), wherein receiving a list of media from a user to be used for one or more future executions of one or more backup jobs associated with the backup devices (*Bolin, all the cartridges are used for storage of data, and are either intended to be written to or read from in the future, figure 5, alternatively step 260 of figure 6 can be considered as sending a list of one media to be loaded and used, figure 6*).

Bolin and Jennings do not appear to disclose said method further comprising, before receiving the list, calculating a required number of scratch media needed for future executions of a backup job and presenting the required number of scratch media to the user.

Kanai discloses calculating a number of media needed for future executions of a backup job and presenting the required number of scratch media to a user (*paragraphs 18-19*).

Bolin as combined with Jennings and Kanai are analogous art in that they have to do with data storage. At the time of the invention it would have been obvious to a person having ordinary skill in the art to modify the GUI of Bolin and Jennings to show the number of scratch media needed by a user, as taught by Kanai. The motivation for doing so would have been that rented storage allows users to be released from the burden of maintenance of storage and thereby have less responsibility of administration (*Kanai, paragraph 5*). Therefore, it would have been obvious to combined the system of Bolin and Jennings with Kanai's rented storage for the benefit of easier administration, to obtain the inventions of Claims 10, 16 and 23.

23. As per Claims 11 and 17, but more specifically to Claim 11, Bolin, Jennings and Kanai disclose(s) the method of Claim 10, wherein calculating comprises: obtaining backup job information from one or more backup applications for the backup jobs (*Kanai, history of usage, paragraph 18*); and using the backup job information to calculate the required number of scratch media needed for the future executions (*Kanai, paragraph 18*).

24. As per **Claims 12 and 18**, but more specifically to Claim 12, Bolin, Jennings and Kanai disclose(s) the method of Claim 10, wherein calculating the required number of scratch media comprises for at least one of the future executions, dividing an average historical backup size of the backup job by an average capacity of a media type associated with the backup job (*Kanai, figure 17*).

III. **CLOSING COMMENTS**

a. **STATUS OF CLAIMS IN THE APPLICATION**

25. The following is a summary of the treatment and status of all claims in the application as recommended by M.P.E.P. '707.07(i):

a(1). **CLAIMS REJECTED IN THE APPLICATION**

26. Per the instant office action, Claims 1-25 have received an action on the merits and are subject of a non-final action.

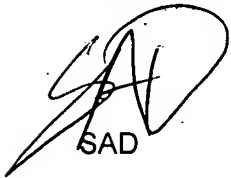
b. **DIRECTION OF FUTURE CORRESPONDENCES**

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Dillon whose telephone number is 571-272-8010. The examiner can normally be reached on 9:30-6:00.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah can be reached on 571-272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

IMPORTANT NOTE

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SAD

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